The Examiner rejected claims 133-156 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent Number 5,721,903 (hereinafter, "Anand"). Applicants respectfully traverse that rejection for the following reasons.

<u>The Cited References Fails to Disclose Each and Every Element of the Claims</u>

Referring to claim 133 (as amended) as an exemplary claim, claim 133 recites:

133. A method of generating one or more database systems, the method comprising:

providing a metadata system that includes a metadata schema, a facility for entering instructions into the metadata schema, and a facility for manipulating the metadata schema;

receiving instructions from a user, wherein the instructions are entered into the metadata schema and are used to create a business database system; and

automatically generating the business database system according to the instructions contained in the metadata schema such that the business database system is well-formed.

In rejecting claim 133, the Examiner stated that Anand discloses that "instructions are entered into the metadata schema and are used to create a business database system." Applicants respectfully disagree with the Examiner's understanding of Anand. Anand is directed to "provid[ing] a system and method for generating reports from a computer database which allow a user to retrieve and analyze data with one tool." (Col. 1, lines 54-56.) In other words, Anand describes a filter for an existing database that extracts pieces of that existing database and presents them to the user.

Embodiments of the present invention, on the other hand, involve creating a database. As claim 133 recites, instructions are received from a user, "wherein the instructions are entered into the metadata schema and are used to create a business database system." Anand neither teaches nor suggests "receiving instructions from a user, wherein the instructions are entered into the metadata schema to create a business database system."

Likewise, the Examiner stated that Anand, at col. 4, lines 29-50, discloses "automatically generating the business database system according to the instructions contained in the metadata schema such that the business database system is well-formed." Again, Applicants respectfully

52083313.1/24489-7001

assert that the Examiner has misread Anand. The section of Anand referenced by the Examiner discloses various ways of linking and displaying data. It certainly does not disclose "automatically generating the business database system according to the instructions contained in the metadata schema," and has nothing to do with a database being "well formed." Thus, Anand neither teaches nor suggests the claimed feature at issue.

Additionally, the Examiner stated that Anand, at col. 5, lines 20-34, col. 9, lines 47-59, and col. 11, lines 41-55, describes the claimed feature of "loading data into the business database system according to the instructions contained in the metadata schema." This feature has been moved to new claim 157, and again, Applicants respectfully assert that the Examiner has misread Anand. The section of Anand referenced by the Examiner discloses a way of translating graphical user requests from the database, and a way of mapping a user interface into an existing database. This section has nothing to do with "loading data into the business database system according to instructions contained in the metadata schema," as is recited by claim 133.

Accordingly, because the claimed features discussed above are neither taught nor suggested by Anand, withdrawal of the Examiner's rejection of claim 133 and all claims that depend therefrom is respectfully requested.

Finally, the Examiner noted that Anand does not explicitly teach a database system. (Office Action, page 15.) The Examiner argued, however, that it would have been obvious to one having ordinary skill in the art to modify Anand to include this feature "because such a modification would allow Anand to store large amounts of transaction-level data for later analysis and to have the ability to seek a competitive edge in business." (Office Action, page 15.)

Applicants respectfully assert that it would not have been obvious to one skilled in the art to modify Anand in the way asserted by the Examiner. As discussed above, Anand is directed to creating a data filter from an existing database. The present invention, on the other hand, is directed to methods of creating a well-formed database. Thus, Anand's teaching of an existing database teaches away from the present invention.

Accordingly, withdrawal of the Examiner's rejection of claim 133 and all claims that depend therefrom is respectfully requested.

With regard to independent claims 141 and 149, Applicants point out that these claims recite features analogous to the features discussed above that distinguish claim 133 from the cited reference. Thus, Applicants respectfully request withdrawal of the Examiner's rejection of these claims, and all claims that depend therefrom.

With regard to the dependent claims discussed by the Examiner, Applicants disagree with the Examiner's characterization of both the claims and the cited reference. Because Applicants believe that the independent claims are both novel and nonobvious, Applicants choose at this time not to argue those points explicitly.

For the reasons given above, Applicants submit that claims 133-165 are in condition for allowance, and a notice to that effect is respectfully requested.

III. CONCLUSION

Claims 88-132 have been cancelled. Claims 133, 141 and 149 have been amended to broaden their scopes. Claims 157-165 have been added. Thus, claims 133-165 are currently pending in the above-referenced application. Applicants respectfully request the reconsideration and allowance of all pending claims. If the Examiner's next action is other than the allowance of all pending claims, the Examiner is invited to call the Applicants' attorney at (650)849-4940.

Effective July 1, 2002, the firms of McCutchen, Doyle, Brown & Enersen, LLP and Bingham Dana LLP merged to become Bingham McCutchen LLP.

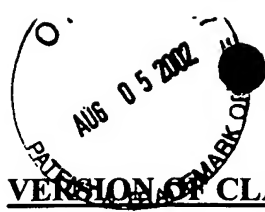Respectfully submitted,

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133.   (Once Amended)   A method of generating one or more database systems, the method comprising:

providing a metadata system that includes a metadata schema, a facility for entering instructions into the metadata schema, and a facility for manipulating the metadata schema;

receiving instructions from a user, wherein the instructions are entered into the metadata schema and are used to create a business database system; and

automatically generating the business database system according to the instructions contained in the metadata schema such that the business database system is well-formed[;

loading generating the business database system according to the instructions contained in the metadata schema; and

operating on the business database system according to the instructions contained in the metadata schema].

134.   The method of claim 133, wherein automatically generating the business database system further comprises:

automatically generating tables according to the instructions.

135.   The method of claim 133, wherein loading data into the business database system further comprises:

extracting data from sources specified in the instructions;

loading the data into staging tables; and

Serial No. 09/073,748
Docket No. 20308/702/24489-7001

52083313.1/24489-7001

loading the data from the staging tables into the business database system based on semantic definitions provided in the instructions.

136. The method of claim 133, further comprising:

building aggregate tables according to the instructions.

137. The method of claim 133, wherein operating on the business database system further comprises:

receiving further instructions from a user to define a query mechanism; and

generating queries according to the further instructions.

138. The method of claim 133, wherein operating on the business database system further comprises:

generating reports according to the instructions.

139. The method of claim 133, further comprising:

receiving a modification of the metadata schema; and

automatically adjusting the business database system according to the modification.

140. The method of claim 133, further comprising:

wherein the instructions provide semantic definitions; and

wherein the business database system is automatically generated using the semantic definitions such that the business database system is well-formed.

141. (Once Amended) A computer system, comprising:

a computer including a processor and a memory;

a computer program stored in the memory and executed by the processor, wherein the computer program includes instructions for:

providing a metadata system that includes a metadata schema, a facility for entering instructions into the metadata schema, and a facility for manipulating the metadata schema;

receiving instructions from a user, wherein the instructions are entered into the metadata schema and are used to create a business database system; and

automatically generating the business database system according to the instructions contained in the metadata schema such that the business database system is well-formed[;

loading data into the business database system according to the instructions contained in the metadata schema; and

operating on the business database system according to the instructions contained in the metadata schema].

142. The computer system of claim 141, wherein the computer program further includes computer instructions for:

automatically generating tables according to the instructions.

143. The method of claim 141, wherein the computer program further includes computer instructions for:

extracting data from sources specified in the instructions;

loading the data into staging tables; and

loading the data from the staging tables into the business database system based on semantic definitions provided in the instructions.

144. The method of claim 141, wherein the computer program further includes computer instructions for:

building aggregate tables according to the instructions.

145. The method of claim 141, wherein the computer program further includes computer instructions for:

receiving further instructions from a user to define a query mechanism; and

generating queries according to the further instructions.

146. The method of claim 141, wherein the computer program further includes computer instructions for:

generating reports according to the instructions.

147. The method of claim 141, wherein the computer program further includes computer instructions for:

receiving a modification of the metadata schema; and

automatically adjusting the business database system according to the modification.

148. The method of claim 141, wherein the computer program further includes computer instructions for:

wherein the instructions provide semantic definitions; and

52083313.1/24489-7001

wherein the business database system is automatically generated using the semantic definitions such that the business database system is well-formed.

149. (Once Amended) A computer readable storage medium encoded with software instructions, wherein execution of the instructions comprises:

providing a metadata system that includes a metadata schema, a facility for entering instructions into the metadata schema, and a facility for manipulating the metadata schema;

receiving instructions from a user, wherein the instructions are entered into the metadata schema and are used to create a business database system; and

automatically generating the business database system according to the instructions contained in the metadata schema such that the business database system is well-formed[;

loading data into the business database system according to the instructions contained in the metadata schema; and

operating on the business database system according to the instructions contained in the metadata schema].

150. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

automatically generating tables according to the instructions.

151. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

extracting data from sources specified in the instructions;

loading the data into staging tables; and

loading the data from the staging tables into the business database system based on semantic definitions provided in the instructions.

152. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

building aggregate tables according to the instructions.

153. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

receiving further instructions from a user to define a query mechanism; and generating queries according to the further instructions.

154. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

generating reports according to the instructions.

155. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

receiving a modification of the metadata schema; and

automatically adjusting the business database system according to the modification.

156. The computer readable storage medium of claim 149, wherein execution of the instructions further comprises:

wherein the instructions provide semantic definitions; and

wherein the business database system is automatically generated using the semantic definitions such that the business database system is well-formed.

157. (New) The method of claim 133, further comprising loading data into the business database system according to the instructions contained in the metadata schema.

158. (New) The method of claim 157, further comprising operating on the business database system according to the instructions contained in the metadata schema.

159. (New) The method of claim 141, further comprising loading data into the business database system according to the instructions contained in the metadata schema.

160. (New) The method of claim 159 further comprising operating on the business database system according to the instructions contained in the metadata schema.

161. (New) The method of claim 149 further comprising loading data into the business database system according to the instructions contained in the metadata schema.

162. (New) The method of claim 161 further comprising operating on the business database system according to the instructions contained in the metadata schema.

163 (New) A method of automatically generating a business database system, the method comprising:

providing a metadata schema;

entering user instructions into the metadata schema; and

automatically generating a well-formed database system according to the instructions entered into the metadata schema.

164. (New) The method of claim 163, further comprising loading data into the automatically-generated business database system according to the user instructions entered into the metadata schema.

165. (New) The method of claim 164, further comprising operating on the business database system according to the user instructions entered into the metadata schema.